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AUTHOR Gilberts, Richard A.; Sherman, Marcella
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ABSTRACT

A model for evaluating the counseling interview is presented. It is felt that this model is both comprehensive and systematic in that it relates the kinds of parameters that appear in the counseling literature to the processes and outcomes of counseling. The three process dimensions that are presented include the client, counselor, and milieu factors. Several research articles which illustrate specific variables in terms of the three process dimensions and their interactions are cited. A categorization of counseling outcome dimensions is provided. The outcome dimensions include affective and cognitive reorganization and behavior change. In order to relate counseling processes to counseling outcomes, a rationale which applies multiple linear regression techniques using process variables to account for variance in specific, counseling outcomes is described. A checklist of process and outcome variables is provided to aid the evaluator in selecting parameters to include in the evaluation of a specified counseling program. (Author)

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ABSTRACT

EVALUATING THE COUNSELING INTERVIEW--A MODEL

Richard A. Gilberts
Marcella Sherman

CENTER FOR PLANNING AND EVALUATION
Santa Clara County Office of Education
1110 North Tenth Street
San Jose, California 95112

A model for evaluating the counseling interview is presented which is comprehensive and systematic as it relates the kinds of parameters that appear in the counseling literature to the processes and outcomes of counseling. Three process dimensions are presented and include the factors of: 1) Client, 2) Counselor, and 3) the Milieu. Several research articles are cited which illustrate specific variables in terms of the three process dimensions and their interactions. Secondly, a categorization of outcome dimensions of counseling is provided which include: 1) Affective re-organization, 2) Cognitive reorganization, and 3) Behavior change.

So that counseling processes may be related to counseling outcomes, a rationale is described which applies multiple linear regression techniques using process variables to account for variance in specific outcomes of counseling. A checklist of process and outcome variables is provided to aid the evaluator in the selection of parameters to include in the evaluation of a specified counseling program.

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Introduction

Counselors and psychotherapists believe deeply in the efficacy of their professional activities. They believe that they are capable of assisting their clients in many ways: depressed are cheered; the anxious are taught to cope; the withdrawn overcome the traumatic; and the anti-social are relieved of some miserable habits. Most counselors are prepared to say that they help people to deal effectively with their problems through applying special techniques acquired through training and experience. Yet Eysenck (1952) said that time heals just as well as psychotherapy.

In the 1960's, counseling researchers began to document the claims of counselors and psychotherapists. Rogers and his students (Truax and Carkhuff, 1963) showed that counseling had an impact on clients, often influencing client growth. Krumboltz and his colleagues at Stanford produced evidence that counseling had observable effects on the behavior of students beyond the confines of the counseling interview (Thoreson and Krumboltz, 1967).

More recently, with the growth of the accountability movement in government, health services, and education, the old questions are being raised again and additional questions are being asked: how can client gains be measured? What is the relationship between client benefits and the costs of counseling services?

Public school personnel particularly have been raising questions about the effectiveness and perhaps the quality of counseling practices in their domain. School teachers and principals have not been in full agreement that schools are the proper place four counseling activities. Some school officials as well as their constituents question whether taxpayers should be expected to foot the bill for services beyond instruction in the basic skills.

In order that the profession of counseling psychology can maintain a perspective of its own position and communicate to various publics the benefits that accrue from its services, it is necessary that some procedures for providing information to decision-makers be formalized so that counseling programs may be validly observed. It is the purpose of this paper to: 1) outline a model for a comprehensive evaluation of the counseling interview; and 2) to suggest a method of evaluating the psychological interview.

Assumptions of the Model

Before the model is presented, it will be helpful to illuminate the assumptions that underlie its structure. In a general sense, it is assumed that counseling activities are intensely personal and complex. While some single factors may directly affect some clients, it is more often the case in the counseling process that complex interaction effects are contributing to changes in the behavior of clients. For this reason, the model to be described leans heavily on the operation of interaction effects both in the process factors of counseling and in the outcome factors.

Secondly, the model assumes that evaluation of counseling ought to be descriptive rather than predictive. Because of measurement errors, recording errors, sampling errors (Horst, 1966) and more recently, the unreliability of gain scores (Stake, 1971), it is advisable that the evaluation of a specified psychological interview be limited to the group under observation.

Thirdly, valid and reliable observations of the counseling process are not confined to quantitative instrumentation. Modifications of client behavior can be described, in many cases persuasively, using narrative descriptions of the significant people and their psychological environments. It is easy to foresee the selection of parameters and the effective use of persuasion in the application of the model to be described to a particular counseling program.

Finally, it is assumed that the evaluative process and product will reflect the biases of the evaluators. Evaluators of the psychological interview are likely to be involved in some way in the therapeutic enterprise. Whatever variables are selected for attention, whoever the client might be, and however the interview is monitored, it can legitimately be expected that the evaluator bias will be embedded in the findings and the interpretation of data. However, one should not be unduly alarmed at this prospect since the outcome of the evaluation could include a sensitive appreciation of the essential changes on the part of the clients, sophisticated methodology, and insightful strategies for improving the therapeutic world.

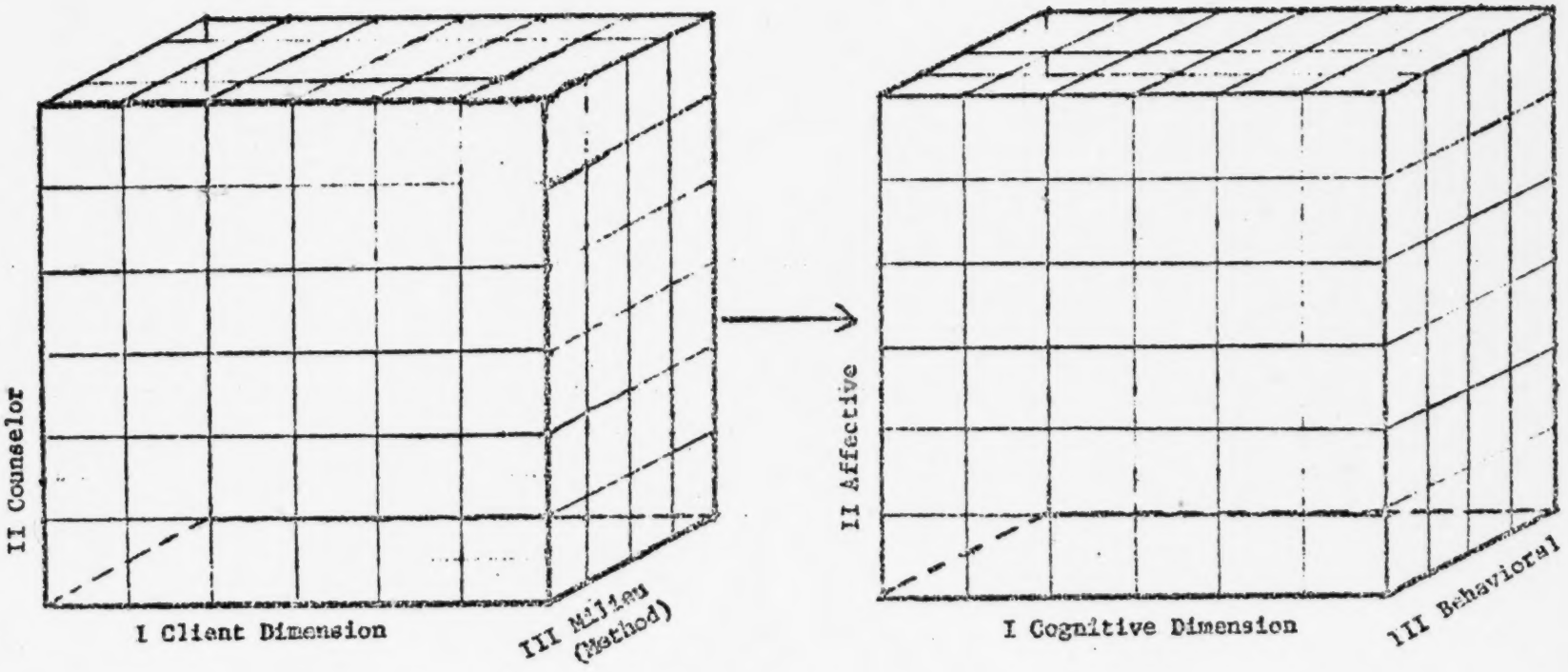
The Evaluation Model

The basic structure of the model for evaluating the counseling interview is the familiar independent and dependent variables that constitute the multiple linear regression paradigm. This kind of schema provides for comprehensiveness since any number of variables significant to therapeutic processes may be considered. Further, the model is methodologically explicit as it lends itself to the application of multiple regression theory.

Figure 1 illustrates the basic configuration of the model. The cube on the left displays the three principal dimensions or ingredients of therapeutic activity. These factors are labeled process variables. Of course, the counselor,

Figure 1

A MODEL FOR EVALUATING THE COUNSELING INTERVIEW



the client, and the milieu*, or the social conditions in which the counseling interview occurs represent significantly broad factors in which more specific attributes of the therapeutic condition may be evaluated. While the vertical lines on the front surface portray specific client characteristics, the horizontal lines of the cube indicate counselor variables. The third dimension of the social milieu is shown to be composed of more specific social conditions (i.e., group and individual settings) and associated methods (i.e., desensitization and verbal conditioning). All of the aforementioned attributes constitute the processes of counseling activity.

Appearing on the right side of the model are the outcomes of counseling. The three principal components of the outcome side of the paradigm are labeled as follows: 1) Cognitive reorganization, 2) Affective reorganization, and 3) Behavioral change, a framework suggested by Stefflre (1970). Traditional endeavors in counseling research and evaluation have largely neglected the outcome phase of counseling.

Implicit in the dimensions of both process and outcome are the interactions between factors. Interactions between the various factors rather than the effects of only discrete factors ought to be considered more frequently in psycho-therapeutic evaluations. For example, we should pay greater attention to counselor/client interaction as both dimensions merge to influence some specified outcome. Other important interaction effects are the counselor/method and the client/method interactions. It is conceivable, for example, that the kind of person the counselor is may be dependent on the method he employs. Specific variables of each of these processes and outcome dimensions are provided in the subsequent section.

Specific Process Factors

The model has been described in terms of the larger dimensions of the counseling interview. The reader may be interested in some of the specific characteristics of the three-dimensional figures on both sides of the paradigm. The counseling literature is rich in information regarding the pieces of the puzzle. An attempt is made here to fit the pieces into the larger framework of the model.

The studies in this article are only suggestive of a larger population of research articles which bare upon the evaluation of the psychological interview. Literature reviews by Cartwright (1968), Thoreson (1969), Patterson (1966), Hosford and Briskin (1968), Stefflre (1970), and Island (1968) provided the sources for identifying attributies of the interview in the psychological literature. The reader is referred to the foregoing reviews for a more integrated view of counseling research.

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* Some would label this third dimension "counseling method" rather than milieu. These writers perceive the social milieu to sumsume the method.

Client Factors (I)

Predispositions of clients seem to be highly regarded topics for inquiry in present research reviews. Variables such as social class, sex preferences for counselors, readiness for counseling, and client expectations, are shown in Figure 2, together with instruments used to observe the variables, results of specific research, and respective authors.

Therapeutic programs may be established directed at specific target groups such as lower class populations. Success of the program may be predicated on unorthodox methods of therapy such as suggested by Gould (1967) which include being more informed, more flexible about lengths of sessions, meeting patients in places other than the office (i.e., a bar, the park), being more physically active and doing more standing and moving around. Observation of the clients' SES is important and may contribute to the ultimate outcomes of the program.

Other variables related to the client factor reported in the reviews were sex preferences for counselors on the part of students, readiness for counseling, client expectations for the interview and birth order, and whether the client volunteered for counseling or was referred. Some interesting instrumentation to assess these propensities included a Counseling Readiness Scale, the Truax Depth of Interpersonal Exploration and the Myers-Briggs Type Indicator. The Counseling Readiness Scale was developed on clients with personal problems to predict counselee continuance in counseling (Heilbaun and Sullivan, 1962). The Truax Scales (Truax, 1962) attempts to measure depth of interpersonal explorations in the interview; and the Meyers-Briggs type indicator was developed to assess a kind of thinking/feeling dimension in clients (Mendelsohn and Geller, 1963).

Counselor Factors (II)

Characteristics of counselors in the research literature is prolific. These qualities seem to cluster around theoretical orientation, personality traits, and experience. Figure 3 portrays some studies that illustrate the kinds of observations that have been made, the instruments used, the results of the research, and the respective authors. Each of these counselor idiosyncrasies may be determinants of counseling outcomes and are to be placed in the columns of the front surface of the model in Figure 1.

The question of theoretical orientation of counselors effecting the behavior of clients was raised in the Fiedler studies (1950a and 1950b). He contended that the theoretical views were not important in influencing counselor's behavior in interviews. Other investigators have since questioned his findings (Sundland and Barker, 1962; McNair and Lorr, 1964) to extent that Stefflre (1970) contended that Fiedler's conclusion does not seem as tenable as it once did.

Figure 2

THE CLIENT FACTOR IN EVALUATION

Observation	Instruments	Results	Authors
1. Social class	Therapy tapes	Lower classes talk more about physical ailments	White (1966)
2. Sex preference for counselors by students	Questionnaire	Same sex preference for clients	Fuller (1964)
3. Client preferences	Rokeach Dogmatism scale	No tendencies for pairs to select like co's.	Steffler & Leafgreen (1963)
4. Counseling Readiness	Counseling Readiness scale (CRS)	Clients with interview longevity are less self-accepting, less able to assume responsibility	Heilbrun & Sullivan (1962)
5. Expectations	Questionnaire	Clients' expectations change as a result of counseling toward wanting more active participation	Pohlman (1961)
6. Birth order	Interview	First-borns spoke more frequently, asked more questions and talked more when anxious	Eisenman (1966)
7. Volunteers	Myers-Briggs Type Indicator	College male vol. concerned more with perception and intuiton than judgment and sensation	Mendelsohn (1962)
8. Volunteers	Mooney Problem Checklist	Volunteers differ from referrals: more females, more problems, higher GPA, problems with people	Esper (1965)
9. Client exploration	Truax's Depth of Interpersonal Exploration Scale	May be applied to tape recordings or transcripts	Truax (1963)

Figure 3

THE COUNSELOR FACTOR IN EVALUATION

Observation	Instruments	Results	Authors
1. Theoretical Orientation		Not a determanent of therapist behavior	Fiedler (1950)
2. Counselor Orientation	Therapist Orientation Scale (analytic-experimental)	A general factor: analytic scale and experimental scale account for therapist differences	Sundland & Barker (1962)
3. Counselor Orientation	MD scale derived from TOS	3 factors: psychoanalytic impersonal vs. personal, directive-active	*McNarr & Lorr (1964)
4. Experience	Gulford-Zimmerman	No diff. between experienced & inexperienced counselors subrole behavior	Campbell (1962)
5. Experience	Discharge rate, psychological tests	Young, untrained college girls effected improvement of male schizophrenics significantly better than trained psychiatrists	Poser (1966)
6. Experience	Drop out rate from interviews	More for inexperienced co.(maturity is crucial)	Baum (1966)
7. Openness	Rorschachs scored for repressive styles	Counseling effectiveness correlated with openness rather than training	Allen (1967)
8. Interests	Strong interest inventory	Therapists were high on lawyer & CPA	Betz (1961)

Figure 3 (Cont'd.)

THE COUNSELOR FACTOR IN EVALUATION

Observation	Instruments	Results	Authors
9. Counselor Personality	MMPI, EPPS, SVID	Nat. sample of rehab co. students (high K, MC, Ma), hi interception, psychologist-social welfare patterns	Patterson (1962)
10. Counselor Personality	The ways of life... self-description checklist	NDEA Inst. Ss emerged as controlled conformists and repressed	Mahan (1964)
11. Counselor Personality	Rokeach's Dogmation scale	Coached client ratings showed better counselors to be less dognatic	Russo, Kelz & Hudson (1964)

The kinds of issues related to personality attributes of counselors as they effect their clients in interviews seem to capitalize on many of the well known personality tests (i.e., MMPI, EPPS, SVIB) used to monitor changes in personality accompanying a training program. The Poser (1966) study showed the effects of experience on patient outcomes. Poser concluded that training may not be necessary for the promotion of therapeutic behavior after showing that young untrained college girls were superior to experienced psychiatrists and psychiatric social workers in influencing 343 chronic male schizophrienic patients. Cartwright (1970) was hard pressed to understand what relevance these studies have for psychotherapy training as it is usually understood.

In the evaluation model any number of counselor qualities, such as the ones suggested, may be selected to assess their relationships to changes in clients depending on the proclivities of the program or the theoretical embracings of the research evaluator.

Milieu Factor (III)

Two themes dominate the milieu dimension of the counseling processes. The first theme deals with the number of clients participating in the interview: individual and group counseling interviews being the primary constituents. The second is a counseling method theme. Included are the methods of sensory deprivation, use of silence, vicarious therapy, desensitization, video-tape playback to clients, and the psychological milieu. Figure 4 shows the pertinent information relative to the observations, the instrumentation, the results of research, and authors of research of the milieu dimension.

One of the more interesting methods was the Adams' et al., studies (1966) which applied sensory deprivation to psychiatric inpatients to facilitate self-understanding and insight. The reported results showed decreased defensiveness and increased ego-strength and an increased MA score using the MMPI and the Interpersonal Checklist before and after treatment. If one of the stated objectives of a counseling program is to facilitate self-understanding and insight, Adams' paper could provide a useful strategy in the overall evaluation design. If, on the other hand, the intent is to generate modification in client behavior outside the interview, the transfer effects detected by Krumboltz and Thoreson (1967) would be useful to incorporate as a milieu factor in the design of the program.

Interaction Factor

Perhaps the process interaction most frequently studied is the one between the client and the counselor. Variables such as SES, theoretical orientations, levels of functioning, counselor style, verbal behaviors, counselor acceptance,

Figure 4

THE MILIEU (METHOD) FACTOR IN EVALUATION

Observation	Instruments	Results	Authors
1. Interview type	Interview	Low anxious Ss responded significantly more to the problem focused interview while low anxious Ss responded more to the free association interview	Kaplan (1966)
2. Transfer effect	Observation	Reinforcing information seeking R's outside of therapy	Thoreson & Krumboltz (1967)
3. Sensory deprivation	MMPI - Interpersonal checklist	Deceased defensiveness, increased ego strength and increased Ma score after sensory deprivation	Adams, Robertson & Cooper (1966)
4. Psychological Milieu	Accurate Empathy Scale, Unconditional Positive Regard Scale, Therapist Genuineness or Self-Congruence Scale	The scales can be applied to tape recordings of counseling interviews	Truax (1962)
5. Silence	Process Scale of Truax	Silence was associated with success. Silence may be an index of empathy, congruence and positive regard	Cook (1964)
6. Vicarious Therapy pretraining	Client's listen to tapes of "good" client behavior	Has facilitating effects in counseling	Truax (1963)

Figure 4 (Cont'd.)

THE MILIEU (METHOD) FACTOR IN EVALUATION

Observation	Instruments	Results	Authors
7. Videotape playback	Use 1st interview recording in 2nd interview, etc., for succeeding interviews, client asked to take role of co.	No results yet	Schmedling (1962)
8. Group Counseling	Sematic Differential Wahler's Self Description Inventory	Boys who received modeled role playing group therapy changed most	Sarason (1968)
9. Desensitization	Behavioral Accordance Test	Standardized desensitization schedule reduced fear was found effective in group treatments	Fishman & Newas (1971)

client expression of feeling, rapport, and transparency are illustrative of the qualities observed in both the client and the counselor as they effect change in the client. This kind of data is shown in Figure 5. For instance, Welkowitz and Ortmeyer (1967) investigated the value system similarity between patient and therapist. These authors found that showing similar values correlated best with improvement in clients.

The convergence hypothesis supported by Pepinsky and Karst (1964), which states that clients improve in therapy because they change to become more like their counselor, exemplifies this important interaction. While the convergence hypothesis is not as tenable as it once was (Stefflre 1970), the relative importance of the client/counselor interaction is shown by this kind of conceptualization.

The virtual absense of counselor/method interaction as they affect outcomes in counseling is conspicuous. It may be worthwhile knowing in a particular evaluation that counselors with personality propensities work best with certain counseling techniques and not so well with others, or that some therapist work better in given social conditions. At any rate, some attention needs to be invested in the counselor/milieu interaction.

A study illustrating the interaction of the client/milieu interaction investigated the effects of interview structure on different levels of anxiety in subjects (Kaplan, 1966). The results showed that highly anxious subjects responded significantly more to problem-focused interviews while low anxiety level subjects responded more to free association interviews. Other characteristics of client milieu interaction which produces changes in clients are needed. It should be noted that the three-way interaction of counselor/client/milieu factors were also neglected in the counseling research literature.

Specific Outcome Factors

The dimensions of outcomes have already been characterized as consisting of: 1) Cognitive reorganization, 2) Affective reorganization, and 3) Behaviorial modification. Since different approaches to measuring client change are acceptable to various professionals and laymen alike, it makes considerable sense in model construction to provide as many alternatives as possible for considering change in clients having experienced therapy.

One of the frequent complaints of those reviewing the counseling literature is the inadequacy of criteria available for measuring changes resulting from counseling. Cartwright (1968) referred to the criterion problem as an unsolved central issue in the field. The purpose of the evaluation model is not to resolve the criterion problem, but rather to view the various approaches to measuring change in a new perspective. It is critical

Figure 5

COUNSELOR/CLIENT INTERACTION IN EVALUATION

Observation	Instruments	Results	Authors
1. SES(Cl)-Experience (C)	Dropout rate from therapy	More lower class cl dropouts with inexperienced co's.	Baum, et al., (1966)
2. SES in client & counselor	Q sort based on EPPS items index	More educated clients were helped by higher trained professionals (i.e. psychiatrist)	Keith-Spiegel (1967)
3. Counselor/client value similarity	Morris Ways to Live Test and SVII	Sharing similar values correlated best with improvement in clients	Welkowitz, et al., (1967)
4. Theoretical orientation	Rogers & Rablen process scale Bales Int. Proc. Analysis	Similar clients (or the kind of client) moved similarly in therapy regardless of differences in technique	Cartwight (1966)
5. Co: empathy, respect, & regard Cl. functioning level	Truax scales	Hi functioning clients are more independent of co. behavior than low functioning persons	Holder (1967)
6. Sex		Female clients express more feeling than male regardless of counselor sex	Fuller (1964)
7. Counselor style (leading & reflective) and induced client set		Co's. not consistent in their co. style	Rottschaffer (1962)
8. Client co. similarity (assume ability to comm.)	Myers-Briggs Type Indicator	Cl-co, similarity correlate with no. of counseling sessions	Mendelsohn (1963)

Figure 5 (Cont'd.)

COUNSELOR/CLIENT INTERACTION IN EVALUATION

Observation	Instruments	Results	Authors
9. Therapist/client transparency	Truax's genuiness scale	Therapist transparency correlated with client transparency	Truax (1965)
10. Co./cl values similarity	AVSV	Duration and success related to Co.-Cl. similarity	Cook (1966)

to people evaluating the processes and outcomes of counseling that the relationships among various sets of criterion measures be seen in perspective.

In the model being presented, no hierarchial scheme is superimposed on the three outcome dimensions. However, it is to be expected that professionals imbued with the centrality of consciousness or being in human affairs will tend to apply criteria that measure the affective domain. Conversely, those who are convinced that human actions are the best indicators of change occuring in clients subsequent to therapy will likely select measures that fit the behavioral dimension of change. While the points of view may be quite irreconcilable, nevertheless both measures may be admitted in an evaluation strategy as evidence of change. For a thoughtful analysis of differing foci on the measurement of change in counseling, see Hosford and Briskin (1968).

Cognitive Outcomes

A change in the cognitive structure characterizes the criteria applied to this factor. Whether the change be gains in academic achievement, vocational choice, or increased information, the client will see the world differently. Some of the criteria used to assess this dimension are grade point average and achievement tests. While Hill (1966) perceived GPA as a poor measure of cognitive change, it is likely that achievement measures will be used more frequently in future research and in evaluation programs as an outgrowth of the accountability movement and the associated public interest in improving basic skills. Variables measured and results of studies specific to cognitive changes are provided in Figure 6.

Affective Outcomes

The discriminating feature of this factor is that changes in the self-consciousness occur as a function of the therapeutic processes and the client is different because of new insights gained or psychological stance modified. One can anticipate affective domain criteria to include measures of self-actualization, openness to experience, self-esteem, self-exploration, and value systems. Personality assessment inventories of a clinical kind are frequently found in these instances. Illustrative studies may be found in Figure 7.

If clients can be affected to feel better about their life circumstances, if they can be assisted to be less fearful and anxious in their interpersonal relationships, or if they can be persuaded to be understanding of childhood experiences, then it may be anticipated that these internal conditions will manifest themselves in improved theoretical constructs and their related measurements.

Figure 6

COGNITIVE REORGANIZATION CRITERIA IN COUNSELING EVALUATION

Observation	Instruments	Results	Authors
1. GPA	GPA	Counseled women coll. students improved GPA significantly	Ivey (1962)
2. Academic performance		Hi anxious students who volunteered for group co. improved significantly	Spielberger, Weitz & Denney (1962)
3. Reading achievement		Sig. diff. between groups receiving indep. co. and matched non-counseled group	Dolan (1964)
4. Achievement and career	Cooperative Elg. Ach. Tests Occupational Aspiration Scale Voc. develop Inv.	Black adolescent students: group counseling improved scores on achievement tests	Gilliland (1968)
5. Underachievement	GPA	Improvement for coll. freshmen with 24 group therapy sessions	Dickenson & Truax (1966)
6. Underachievement	GPA	10th grade boys improved 18 weeks of group counseling	Benson & Blocher (1967)
7. Appropriateness of vocational objectives		Counseled Ss had more appropriate voc. objectives after counseling	Gonyea (1962)
8. Information about tests & vocational choice		Counseled group improved more than non-counseled group	Wright (1963)
9. Information seeking behaviors	Projective story completion	Conditioning generalized to non-counseling talk	Ryan & Krumbultz (1964)

Figure 7

AFFECTIVE REORGANIZATION CRITERIA IN COUNSELING EVALUATION

Observation	Instruments	Results	Authors
1. Self-actualization	Personal Orientation Inventory	Significant increase in self-actualization	Lieb & Snyder (1967)
2. Openness to experience	Fitzgerald Scale	High scores predict original word association and ability to shift responses under different conditions	Fitzgerald (1966)
3. Anxiety reduction	IPAT anxiety	Patients had high initial levels and E dropped more than C	Cattell (1966)
4. Self-Esteem	Rorschach Self & Ideal Q sort	No differences between E-C groups after 20 sessions of therapy	Gaylin (1966)
5. Self-Exploration	MMPI	Counselor transparency was related to client self-exploration	Mattarazo (1965)
6. Moral Values	Kelly's Role Construct Repertory Test	Clients moved toward the ideal of the therapist's values in the clients perspective	Landfield & Newas (1964)

Behavior Outcomes

The most salient feature of the behavioral change dimension is the specificity of the observation. When the task of counseling is highly visible and the assessments can be made by counting the frequencies of response of the subjects, the appropriate criteria to apply are behavioral criteria.

Measures of this kind are highly reliable. Illustrating these kinds of variables (see Figure 8) are delinquent behavior, extinction of phobias and undesirable habits, modification of verbal behavior and the like. Very often behavior modification techniques are used in the interview such as systematic desensitization and reinforcement schedules.

It is very possible that a change in one dimension is dependent upon change in another. For instance, a change in behavior, such as the extinction of a phobia, may be accompanied by a shift in attitudes and cognitive structure. A school phobic who, subsequent to a treatment program, now attends school is likely to improve in his academic performance as well as to increase his liking for teachers and classmates. The interaction of outcome criteria presents some very real possibilities for evaluation.

Methodology

Implementing the counseling evaluation model in an evaluation program may be accomplished by first transforming selected process and outcome parameters into objectives and second, applying appropriate data analysis techniques to the obtained data.

Objectives

Mager (1962) has explained at length some of the ingredients of objectives for evaluators. More recently O'Hare and Lasser (1971) have presented a rationale for evaluating pupil personnel programs, and Wellman (1967) has provided a comprehensive listing of objectives together with criteria for assessing them in a taxonomy for guidance programs.

In a discussion of evaluating a behavioral counseling program, O'Hare and Lasser (pp. 71-77) presented a case study describing how Greg, an eleven year-old fifth grader, was trained to extinguish his disturbing and inappropriate classroom behaviors. After a system of reinforcement was applied to Greg and his classmates, the criteria of diminishing the outbursts to one per hour was sufficient for asserting that the treatment for Greg was successful. Often in the evaluation of programs, a successful evaluation is predicated on whether the objectives stated prior to the implementation of the treatment were accomplished

Figure 8

BEHAVIOR CHANGE CRITERIA IN COUNSELING EVALUATION

Observation	Instruments	Results	Authors
1. Delinquent Behavior	TAT	Institutionalized offenders obtained significantly lower anti-social scores	Johnson (1961)
2. Phobia Extinction	Cornell Index	More rapid improvement with reduced time using desensitization	Gelder, Macks, & Wolff (1967)
3. Insomnia Reduction	Case study	Treated successfully in 14 sessions with desensitization	Greer & Katkin (1966)
4. Stealing Extinction	Case study	Ten year old boy develops maturity and age appropriate behavior	Wetzel (1966)
5. Verbal Behavior	Projective Story Completion Task	Decision and deliberation R's were reinforced and persisted in non-counseling tasks	Ryan & Krumbultz (1964)
6. School Phobia		Desensitization in the school environment proved successful	Garvey & Hegrenes (1966)

In light of the counseling evaluation model already presented, imposing objectives on Greg's treatment commensurate with the cognitive or affective dimensions of counseling outcomes could have enhanced the evaluation of this event. Greg most likely had a change of attitude as a result of his treatment or possibly he saw his classmates and teachers from a different perspective. There may have been an associated increase in his self-esteem or he may have become anxious in his new school environment now that his disruptive behavior was diminished. It is also possible that his academic performance was improved. More sense could be made of Greg's treatment program if other kinds of information were available. Did ending the disruptive behavior improve the quality of his life? This question and others ought to be asked in a valid evaluation of the treatment.

Data Analysis

The counseling research literature speaks directly to the problem of dealing effectively with problems of research design. Steffire (1970) and Thoreson (1968) exposed the need for gaining controls over variables by comparing competing counseling treatments and the use of single criterion measures. Practical problems facing researchers and evaluators such as proper randomization of subjects, controlling treatments, and protection against contamination combine to mitigate against reliable and valid investigation. However, all is not lost.

Walberg (1971) described how multivariate multiple regression techniques may be used to sort out incremental, multivariate, interactive, and non-linear effects inherent in much of the research in counseling. Analysis of variance designs, Walberg (p. 72) contends, which compare differences between treatment (i.e., counseling programs) variables or response classes (i.e., personality traits) may be arranged to accommodate a multiple regression analysis equation.

The advantage of this approach is that the amount of variance in outcome variables can be assigned separately to treatment programs and response classes. By attending to the percentage of variance accounted for in the outcome measures by process measures, the effects of counseling treatments, personality characteristics of clients and counselors, and milieu factors can all be accounted for separately in regression analysis techniques. Quasi experimental programs (subjects are assigned to treatments by convenience) as in the case in many evaluation programs, are particularly amenable to regression analysis where assumptions of experimental randomization is not critical. The test of whether the input variables are contributing significantly to variance in the outcome measures is made by computing F ratios through testing the increments in the squared multiple correlation, an estimate of accountable variance.

Perhaps the most salient feature of multiple regression analysis is that many input and many outcome measures of counseling effectiveness may be applied in a given evaluation program. A consideration of many ingredients of the counseling process can be viewed in the light of a substantial number of outcomes of the program.

The convenience of using multiple regression should not be overlooked. Most university and government computer facilities have readily available computer programs and other software required for multiple regression analysis procedures. One popular version is the Stepwise Regression BMD02R of the Biomedical Computer Program (1965) package available for users at most of the larger computation centers. This program computes statistics essential for ranking the ingredient variables as they contribute to variance in the outcomes, beginning with the most powerful variable and adding to that the next most powerful in terms of variance accounted for in the outcome until some criteria is met. However, other multiple regression rationals are also appropriate.

Horst and MacEwen (1960) have described a method of multiple linear regression where an elimination procedure is used in contrast to the accretion procedure available in the BMD02R program. The elimination procedure considers the entire pool of input measures and systematically eliminates those measures in order of least predictive value for the specified criterion. A computer program in Fortran IV was developed by Gilberts (1968) which is based on the elimination technique.

A Counseling Objective Checklist

To facilitate the organization of selecting objectives, a checklist is provided in Figure 9 that illustrates the kinds of parameters significant to counseling processes and outcomes. Most evaluations of counseling programs will plan to consider only special kinds of process and outcome variables. The kinds selected will depend upon the long-range commitments of the program, the nature of the clients, available facilities, and the theoretical inclinations of the evaluators or therapists.

Figure 9

COUNSELING EVALUATION OBJECTIVES CHECKLIST

Input Factors				Outcome Factors			
Client	Counselor	(Method) Milieu	Interactions	Cognitive	Affective	Behavioral	Interactions
___SES	___Theorectical orientation	___Interview type	___Cl.SES/ Co.Exper	___GPA	___Self Actual-ization	___Delinquent Behavior	___GPA/Self Actual-ization
___Performances	___Experience	___Transfer Effect	___Co/Cl. SES	___Reading Ach.	___Open to experience	___Phobia Extinction	___Reading Ach/ Anxiety Red.
___Counseling Readiness	___Openness	___Sensory Deprivation	___Co/Cl. Values	___Math. Ach.	___Anxiety Reduction	___Insomnia Reduction	___Voc.Obj./ Delinquent Behavior
___Expectations	___Interests	___Psychologi-cal milieu	___Co/Cl. trans-parency	___Under Ach.	___Self-Esteem	___Stealing Extinction	___Self-Actual-ization/ Phobia Extinction
___Birth Order	___Personality	___Silence	___Co/Cl. Sex	___Vocational objectives	___Self-explora-tion	___Verbal Be-havior mod-ification	___Verbal Be-havior Mod/ Self-Esteem/ Reading Ach.
___Volunteer for Counseling	___Values	___Vicarious Therapy	___Co. method/ Client type	___Information acquisition	___Moral Values		
___Personality	___Sex	___Videotape Playback	___Cl. type/ method			___School Phobia	
___Interests	___Attractive-ness	___Group Counseling	___Cl.Type/ Co.Type/ Method				
___Values		___ Decensitization					
___Age							
___Sex							

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